

REMARKS

Claims 16-20 and 27-31 are pending in this application. Claims 16-20 and 27-31 are amended to clarify what is claimed and to put the claims in better form for U.S. prosecution. New claims 33-36 are presented. Applicants respectfully submit that no new matter is added as written description support for the new and amended claims exists in the specification and claims as originally filed.

Rejection under 35 U.S.C. § 103(a)

The present invention generally relates to aqueous phytopathological formulations comprising at least one aminophosphate- or aminophosphonate-type herbicide, at least one principal surfactant comprising an alkylbetaine, and at least one additive comprising an alkylpolyglycoside additive.

The Non-Final Office Action continues to reject claims 16-20 and 27-31 as obvious under 35 U.S.C. § 103(a) over Sato *et al.* (U.S. Patent No. 5,998,332) ("Sato") in view of Koenig *et al.* (WO 01/26469) ("Koenig"). *See* Office Action at 2-3.

According to the Office Action, Sato teaches high concentration glyphosate compositions comprising activity enhancing surfactants such as trialkylbetaines and alkyl glycosides/polyglycosides at amounts ranging from 2 to 25% by weight, with optional additives such as inorganic salts, and additional active agents such as bialaphos and glufosinate. *See* Office Action at 2. According to the Office Action, Koenig teaches a composition comprising isopropylamine salt of glyphosate and suggests the addition of surfactants including betaine derivatives and alkyl glycosides. *See* Office Action at 2-3.

Although the Office Action acknowledges that neither Sato nor Koenig teaches a

composition comprising an isopropylamine salt of glyphosate, trialkyl betaines, alkyletheramines and polyglycosides, the Office Action states that:

“it would have been obvious to make the instant composition since the combination of references suggests the composition. One of ordinary skill in the art would have been motivated to combine these references because they disclose components, which are useful for formulating and enhancing the activity of aqueous glyphosate or aminophosphate herbicide compositions.”

Office Action at 2-3.

Moreover, the Office Action states that “[t]he mere fact that Sato [and Koenig] list betaines and alkylpolyglycoside as possible surfactants to be combined with the glyphosate makes the combination obvious.”

Applicants respectfully traverse.

As an initial matter, Applicants note that independent claim 16 is amended to remove recitation of alkyl(amidoalkyl)betaines as a principal surfactant and alkylmonoglycoside as an additive.

Applicants submitted arguments against the *prima facie* case of obviousness and evidence of unexpected results in the Request for Reconsideration after Final Office Action filed on December 4, 2009. Those arguments and full experimental results will not be repeated here but are incorporated by reference. The following summary of the experimental results showing that the particular combination of betaine and polyglycoside surfactants unexpectedly yielded better control of plant growth with glyphosate than either surfactant alone is repeated for the convenience of the Examiner:

Summary of Experimental Results

Ex #	glyphosate IPA (pbw)	(C ₁₂ -C ₁₄)alkyl dimethylbetaine (pbw)	(C ₈ -C ₁₀)alkyl polyglucoside (pbw)	water (pbw)	Average control
1	41.8	2.93	0.36	54.91	56
2	41.8	2.79	0.72	54.69	47
3	41.8	1.86	2.9	53.44	36
C1	41.8	3.1	0	55.1	24
C2	41.8	0	7.24	50.96	32
C3	41.8	0	0	58.2	18

At page 5, the Office Action finds the previously-submitted evidence of unexpected results unconvincing for the following reasons:

1) No experiments were conducted with alkyl polyglycoside as the only surfactant.

Response: Example C2 above shows results with 41.8 pbw glyphosate, 0 pbw betaine, and 7.24 pbw alkylpolyglycoside. Accordingly, Comparative Example C2 shows results with alkylpolyglycoside as the only surfactant.

2) No specific alkylbetaines and alkylpolyglycosides appear to be identified in the Examples.

Response: "(C₁₂-C₁₄)alkyl dimethylbetaine" refers to a mixture of C₁₂ alkyl dimethylbetaine, C₁₃ alkyl dimethylbetaine, and C₁₄ alkyl dimethylbetaine. Similarly, "(C₈-C₁₀)alkyl

polyglucoside” refers to a mixture of C₈ alkylpolyglucoside, C₉ alkylpolyglucoside and C₁₀ alkylpolyglucoside. Accordingly, Applicants submit that specific alkylbetaines and alkylpolyglycosides have been identified.

3) The results are not commensurate in scope with the claims.

Response: As noted above, independent claim 16 has been amended to remove recitation of alkyl(amidoalkyl)betaines as a principal surfactant and alkylmonoglycoside as an additive. As amended, claim 16 now recites:

16. An aqueous phytopathological formulation comprising:

- a hydrosoluble salt of at least one aminophosphate- or aminophosphonate-class herbicide;*
- at least one principal surfactant comprising an alkylbetaine; and*
- at least one additive comprising an alkylpolyglycoside.*

Applicants respectfully submit that the results are commensurate in scope with the amended claims.

4) At page 11 of the specification, the results are not convincing. Example C2 uses 7.24 pbw C8-C10 polyglycoside, whereas inventive examples 1, 2, and 3 employ much less C8-C10 polyglycoside (0.36 pbw and 0.72 and 2.9pbw). This does not appear to be a side-by-side comparison.

Response: As an initial matter, it is not clear to Applicants why page 11 of the specification is


referenced. The specification does not include a page 11. Applicants note the difference in amounts between the alkylpolyglycoside in Comparative Example C2 as compared to Inventive Examples 1, 2, and 3. Nevertheless, Applicants respectfully submit that this difference does not detract from the evidence of unexpected results for at least the reason that a larger amount of alkylpolyglycoside would be expected to increase the average control as compared with a lesser amount of alkylpolyglycoside; however, even with the relatively large amount of alkylpolyglycoside in the Comparative Example C2 (7.24 pbw), the average control for Comparative Example C2 is inferior to the average control of any of the Inventive Examples 1, 2, or 3.

Accordingly, Applicants submit that the evidence of unexpected results overcomes any prima facie case of obviousness with regard to the rejected claims. Withdrawal of the rejection is respectfully requested.

Conclusion

Applicants submit that all claims are in condition for allowance; notice to that effect is hereby solicited. Should any issues remain to be discussed in this application, the examiner is invited to contact the undersigned by telephone.

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